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ENVIRONMENTAL ASSESSMENT PANEL REVIEWING MILITARY FLYING
ACTIVITIES IN LABRADOR AND QUEBEC. REVISED DEFICIENCY
STATEMENT. 1991.

CA 1 EP60091E51



**ENVIRONMENTAL ASSESSMENT PANEL
REVIEWING MILITARY FLYING ACTIVITIES
IN LABRADOR AND QUEBEC**



**REVISED DEFICIENCY STATEMENT
Respecting**

**"Goose Bay EIS
An Environmental Impact Statement
on Military Flying Activities in Labrador and Quebec"**

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INTRODUCTION

The Department of National Defence (DND) released **An Environmental Impact Statement on Military Flying Activities in Labrador and Quebec** (EIS) on 31 October 1989.

In accordance with Subsection 5.2 of its **Procedures for the Public Review**, the Panel arranged for the distribution and availability of the EIS. The Panel also provided a period of 90 days to allow the public, government agencies, and technical specialists to review the EIS and submit their comments on its adequacy. The review period ended on 12 February 1990.

The results of the review were substantive written comments from 18 Technical Specialists, and 120 written submissions from government agencies and the general public.

In May 1990, the Panel completed its review of the EIS and issued a **Deficiency Statement** identifying the need for additional information before public hearings could be held. The **Deficiency Statement** contained 38 deficiencies.

In a letter of December 21, 1991 the Minister of National Defence informed the Minister of the Environment, of the cancellation of component 2 of the project (i.e., the NATO tactical fighter weapons training centre) and requested that the **Deficiency Statement** of the Panel be modified accordingly.

OBJECTIVE IN REVIEWING THE EIS

The objective of the review of the EIS was for the Panel to determine whether the EIS addresses each requirement of the **Guidelines for the preparation of: An Environmental Impact Statement on Military Flying Activities in Labrador and Quebec**, issued in 1987. A deficiency was defined as being an error or omission of such significance that it would not be useful for the Panel to proceed to the next stage of the review process, namely, public hearings.

OBJECTIVE IN REVISING THE DEFICIENCY STATEMENT

In revising the **Deficiency Statement** the Panel evaluated two things: which of the 38 deficiencies related specifically to component 2 of the project and should be deleted and whether, in light of a reduced project scope, any of the other deficiencies should also be modified or deleted.

The Panel, in its revised **Deficiency Statement** of December 1991 has deleted nine (9) deficiencies, specifically the previous # 9, 11, 13, 18, 21, 24, 27, 32, 34 and has modified 15 others, the previous # 1, 3, 7, 8, 10, 12, 14, 16, 22, 23, 29, 30, 31, 33, 35 to some extent.

FORMAT OF A REVISED EIS

The Panel believes that the EIS that will be used for public hearings should be in an easily comprehensible format. The Panel is concerned that such would not be the case if the requirements of this Deficiency Statement were met by supplying a list of additions or corrections to the original EIS. The Panel asks the Proponent to take this concern into consideration.

CONSULTATION BY THE PROPONENT

The Panel reminds the Proponent that the Technical Specialists are at the reasonable disposal of all review participants, including the Proponent. Any request for their services should be addressed to the Panel's Secretariat.

The present Deficiency Statement takes into account, among other things, the written comments of the Technical Specialists, government agencies, and the public. The Panel encourages the Proponent to make use of those comments.

EXPLANATORY NOTE

Many of the deficiencies identified herein have repercussions throughout the text of the EIS. For example, a data-omission in Subsection 6.3 may result in an impact's being overlooked, which will mean in turn that no relevant mitigative measures, residual impacts, or monitoring activities are identified. For the sake of brevity, the Deficiency Statement cannot describe in detail the consequences of every deficiency identified. In the absence of a statement to the contrary, the Proponent must assume that a deficiency noted in one subsection will require correction in that subsection and in all related subsections.

It is also to be noted that any reference to the "project" or "projects" under review is now to be interpreted only as the activities previously identified under component 1, i.e., existing and anticipated low level flight training being carried out under bilateral agreements with NATO allies.

DEFICIENCY # 1

GUIDELINES SECTION: 4.0, Page 9, Para. 1

GUIDELINES REQUIREMENT "Where particular age or sex groups may be differentially affected by an impact, the Proponent must organize its research and analysis accordingly."

DEFICIENCY The EIS devotes insufficient attention to organizing its research and analysis by age or sex.

MINIMUM REQUIREMENT TO RECTIFY THE DEFICIENCY The EIS must organize its research and analysis by age or sex wherever it is relevant to do so.

DEFICIENCY # 2

GUIDELINES SECTION: 4.0, Page 9, Para. 2

DEFICIENCY The EIS pays insufficient attention to the Naskapis and Montagnais of Labrador and the Montagnais of Quebec. While it is true that the Conseil Attikamek-Montagnais and the Naskapi-Montagnais-Innu Association declined to cooperate with DND in the preparation of the EIS, the Panel cannot accept that as a justification.

Moreover, the EIS pays insufficient attention to existing information concerning the Montagnais of Schefferville and of Sheshatshit.

MINIMUM REQUIREMENT TO RECTIFY THE DEFICIENCY The EIS must incorporate relevant published and unpublished material on the above-mentioned groups and must draw upon research on related aboriginal groups. The EIS must also evaluate more fully the consequences of any missing data about those groups on the reliability of the EIS as a whole.

DEFICIENCY # 3

GUIDELINES SECTION: 4.0 (1)

GUIDELINES REQUIREMENT "It [the EIS] must identify a set of valued ecosystem components to provide a focus for subsequent activities.

In attempting to ascertain the fundamental cultural values placed upon the various components of the ecosystem, the Proponent must consult all groups, including provincial, regional and municipal governments, and a representative sample of individuals in the Project Area, and must also employ other available methodologies as are available.

If different groups assign different values to certain components, the Proponent must explain and justify the values that it retains, or must present a series of analyses based upon the different values that it identifies."

DEFICIENCY The Panel has identified the following, which collectively constitute a deficiency:

- (1) the EIS limits Valued Ecosystem Components only to species of fish and wildlife, and to components of the vegetation, and ignores other relationships;
- (2) the process of public consultation is not described, and such consultation as may have been carried out does not appear to have been sufficiently broad; moreover, field work related to the development of land use maps is not reflected in the EIS;
- (3) the EIS does not adequately explain the values that it retains; nor does it present a series of analyses based upon the different value systems that exist in the Project Area;
- (4) the EIS does not adequately explain why it does not expect certain Valued Ecosystem Components to be affected.

MINIMUM REQUIREMENT TO RECTIFY THE DEFICIENCY The Proponent must rectify the preceding deficiencies. The Proponent must identify a comprehensive set of valued ecosystem components by employing the broad definition of "ecosystem" presented in Paragraph 4 of Page 8 of the Guidelines and including the aspirations of the residents of the Project Area, as required by Section 6.4 (Page 27, Para. 6) of the Guidelines. In order to meet this requirement effectively, the Proponent must consult the required groups and individuals.

DEFICIENCY # 4

GUIDELINES SECTION: 4.0 (2)

GUIDELINES REQUIREMENT "It [the EIS] must show clear temporal and spatial boundaries for the analysis of expected changes in each valued ecosystem component, and must explain and justify such boundaries, bearing in mind that they may not be the same for each element of the Project or for each valued ecosystem component."

DEFICIENCY The EIS establishes a single spatial boundary for the analysis of all expected changes (Figure 1.3). That boundary is based largely upon the anticipated spatial distribution of Project activities. The EIS does not deal adequately with the temporal boundaries for the analysis of the expected changes.

MINIMUM REQUIREMENT TO RECTIFY THE DEFICIENCY The EIS must show, explain, and justify temporal and spatial boundaries for the analysis of the expected changes in each valued ecosystem component. For example, the spatial boundaries for analyzing expected impacts on the George River Caribou Herd might have to include the entire range of that herd. Similarly, the spatial boundaries for the evaluation of possible impacts on the Inuit of Labrador would presumably have to include Happy Valley-Goose Bay, where a significant number of Labrador Inuit now live. We draw the Proponents's attention to the definition of "Project Area" on Page 2 of the Guidelines. Individual temporal boundaries must also be established for the analysis of expected changes to each valued ecosystem component. The temporal boundaries will depend on a number of factors, including the anticipated longevity of the Project, the nature and intensity of the expected changes, and the attributes of the valued ecosystem component in question.

DEFICIENCY # 5

GUIDELINES SECTION: 4.0 (3)

GUIDELINES REQUIREMENT "It [the EIS] must describe the strategies and methodologies for investigating the effects of the Project on each valued ecosystem component, and for establishing the overall impacts of the Project. The EIS must formulate hypotheses that can be tested during the study or in the monitoring programme."

DEFICIENCY The EIS does not adequately describe the strategies and methods for investigating the effects of the Project on most of the valued ecosystem components, especially for the non-biophysical components. The EIS does not sufficiently employ testable hypotheses, particularly with respect to possible impacts on human, small mammals, and other wildlife; nor does the proposed monitoring programme provide for the testing of hypotheses that could not be tested during the preparation of the EIS.

MINIMUM REQUIREMENT TO RECTIFY THE DEFICIENCY The EIS must describe strategies and methodologies for investigating the effects of the Project on each valued ecosystem component and must formulate hypotheses that can be tested during the study or in the monitoring programme.

DEFICIENCY # 6

GUIDELINES SECTION: 4.0 (4)

GUIDELINES REQUIREMENT "It [the EIS] must define how the significance of Project-induced changes in valued ecosystem components will be determined. If they cannot be so defined, adequate reasons must be given, and the consequences of the absence of such definitions must be identified. The groups and individuals mentioned in 4.0 (1) must be consulted in this matter also."

DEFICIENCY The EIS does not either define how the significance of Project-induced socio-economic and cultural changes is determined or give adequate reasons why such definitions could not be given and evaluate the consequences of their absence. The EIS does not indicate that the required groups and individuals were consulted.

MINIMUM REQUIREMENT TO RECTIFY THE DEFICIENCY After consulting the required groups and individuals, the Proponent must correct the preceding deficiency.

DEFICIENCY # 7

GUIDELINES SECTION: 4.0 (5); 6.3, Page 18, Para. 6

GUIDELINES REQUIREMENT "It [the EIS] must state impact predictions explicitly and must present the basis on which they are made.

The predictive analysis must describe the nature, magnitude, duration, extent, level of confidence and range of uncertainty of the predicted changes.

The proponent must present its estimate of the anticipated lifespan of each component and element of the project and must justify its estimates with reference to documented roles of change in military technologies and strategies."

DEFICIENCY The EIS contains the following, which collectively constitute a deficiency:

- (1) it does not state many of the social, cultural and economic impact predictions explicitly enough and does not adequately describe their nature, magnitude, duration, extent, level of confidence, and range of uncertainty;
- (2) the predictions of social, cultural and economic impacts are not based on the same (or comparable) criteria as those of the biophysical impact predictions;
- (3) it does not explain the anticipated lifespan of the Project and evaluate the impacts identified in relation to that lifespan.

MINIMUM REQUIREMENT TO RECTIFY THE DEFICIENCY The EIS must correct the preceding deficiency.

In so doing, the EIS "...must identify clearly the direct, indirect, short-term, long-term, positive and negative impacts..." as required by section 6.5 (general) of the Guidelines. Moreover the EIS must identify the full range of impacts likely to result from the Project, not only those associated with the Issues listed in Section 5.0 of the Guidelines.

Based on the letter of December 21, 1990 from Honourable Bill McKnight to Honourable Robert R. de Cotret, further treatment of the anticipated lifespan of Component 2 is not required.

DEFICIENCY # 8

GUIDELINES SECTION: 4.0 (6)

GUIDELINES REQUIREMENT "The EIS must also take into account the past, present and future dynamism of the ecosystem, including that of the relevant cultures, societies and economies, in relation to the expected duration of the Project."

DEFICIENCY The EIS fails, with a few exceptions, to take into account the past, present, and future dynamism of the ecosystem with and without the Project. Consequently, important relationships and interactions among and between ecosystem components may have been overlooked. To the extent that impacts are identified and their significance assessed, the EIS does not systematically evaluate whether their nature and magnitude are likely to change with time.

MINIMUM REQUIREMENT TO RECTIFY THE DEFICIENCY The EIS must describe and explain the dynamism of the ecosystem, including a comparison of the anticipated changes with and without the Project. The Proponent may find it useful to take account of socially and ecologically comparable areas over which low-level flying has not been practiced. It must analyze the impacts identified in terms of their possible repercussions throughout the ecosystem. It must also consider whether and how the impacts identified are likely to change with time. In carrying out the preceding, the Proponent must pay particular attention to the human components of the ecosystem.

DEFICIENCY # 9

GUIDELINES SECTION: 4.0, Page 11, Para. 6

GUIDELINES REQUIREMENT "There is increasing recognition, however, that aboriginal persons possess knowledge and understandings that complement and sometimes improve those available from other approaches. The Proponent must make full use of the knowledge, understandings and interpretations of aboriginal persons, not only in areas where other types of data, knowledge and interpretations are not available, but also to complement and improve them where they exist."

DEFICIENCY The EIS contains little indication that the knowledge and understandings of aboriginal persons were used, with certain exceptions relating to the areas designated as "Quebec Border", "Quebec North Shore" and "Southeast Ungava Bay".

MINIMUM REQUIREMENT TO RECTIFY THE DEFICIENCY The EIS must make full use of the knowledge, understandings, and interpretations of aboriginal persons. Should any aboriginal organization refuse to cooperate, the Panel will accept such relevant information as can be derived from the literature on the data, knowledge, understandings and interpretations possessed by aboriginal persons.

DEFICIENCY # 10

GUIDELINES SECTION: 5.0 (2) (a)(b)

GUIDELINES REQUIREMENT "The effects of noise from military aircraft flying at subsonic and supersonic speeds on the physiological and psychological health of human individuals and groups, including a consideration of the so-called "startle effect."

"The effects of noise from military aircraft flying at subsonic and supersonic speeds on fish and wildlife, both individuals and populations, including a consideration of the so-called "startle-effect." The examination of this issue must include reference, as appropriate, to group cohesion, short and long-term mother-young bonds, migratory behaviour, feeding behaviour, nutritional and physiological status, distribution and dispersion (seasonal and long-term), reproductive behaviour, interspecific relations (including predation) and other aspects of behaviour and life-cycles."

DEFICIENCY The EIS does not contain the results of any field work on the short- and long-term effects of noise on humans in the Project Area; nor does it contain an analysis of the relevant health data and statistics from the Project Area, or a comprehensive, critical evaluation of the literature.

The EIS contains the results of little fieldwork on the effects of noise on fish and wildlife, and its review of the relevant literature is incomplete. The life-history, biological and physiological information presented for most species is inadequate for assessing the possible impacts of noise. The possible impacts of increased night flying on nocturnal and diurnal animals are not considered.

MINIMUM REQUIREMENT TO RECTIFY THE DEFICIENCY The EIS must:

(1) contain a thorough, critical review of the published literature on the impacts of noise on wildlife; (2) using the available literature, present the required life-history information for every "valued" species of wildlife (including fish); (3) present a species-by-species assessment of the possible impacts of the types and levels of noise associated with the Project; (4) pay particular attention to the possible impacts on every species of wildlife of noise from low-level flights at night.

If the Proponent feels unable to undertake field work on the effects of noise on humans, it must at least present an analysis of the relevant data and statistics from the Project Area, together with a comprehensive, critical evaluation of the pertinent literature.

Based on the letter of December 21, 1990 from Honourable Bill McKnight to Honourable Robert R. de Cotret, further treatment of the impacts of supersonic flights is not required.

REFERENCES

Harrington, F. H. 1988. **The George River Caribou population: Its History and Management, with Special Reference to Low-Level Military Training in Labrador.** Labrador Inuit Association. 144 pp.

The Steering Committee for the Study to Assess The Impact Low-Flying Jet Aircraft have upon Caribou Behaviour. 1987. **Low Level Flying Jet Aircraft Impact upon Caribou Behaviour.** Progress Report Summary - 1986 Season.

DEFICIENCY # 11

GUIDELINES SECTION: 5.0 (4)

GUIDELINES REQUIREMENT "The effects of the Project on the cultures, economies, and land use of the residents of the Project Area, with particular reference to those of the aboriginal peoples."

DEFICIENCY The EIS contains the following, which collectively constitute a deficiency:

(1) it attempts to address what it calls "community-based resource use", but it notes (Page 6 - 132) that "...impacts could not be projected because of project and scientific uncertainty..." and that the indicators used "... are largely descriptive, and neither provides a measure for the type or severity of impact the project could cause";

(2) although the questionnaire addressed the issue of the dynamism of land use, the maps and text do not present the relevant results;

(3) the discussion of community-based resource use does not address such matters as the nutritional value of the resources or the availability of comparable, alternative sources of nutrition;

(4) the question of the effects of the Project on the cultures and on the residents of the Project Area is not addressed in a meaningful way. In particular, assertions made to the Panel that the Project has already had serious negative impacts on certain aboriginal and other cultures and land-use within the Project Area are not evaluated;

(5) finally, it does not deal adequately with the present or future impacts of the Project on the economies of the Project Area.

MINIMUM REQUIREMENT TO RECTIFY THE DEFICIENCY The Proponent must take all necessary steps, including consultation and review of the literature, to identify the full range of possible impacts of the Project on the subjects listed in this Subsection.

DEFICIENCY # 12

GUIDELINES SECTION: 5.0 (5)

GUIDELINES REQUIREMENT "The impacts of the Project on renewable-resource-based commercial activities, including angling and sport hunting;"

DEFICIENCY The EIS deals with the subject matter of this Subsection incompletely. Among other things, its treatment of the present importance and future potential of outfitting, commercial hunting, fishing and trapping, sport hunting and angling and wilderness tourism is inadequate, despite substantial literature on those matters.

MINIMUM REQUIREMENT TO RECTIFY THE DEFICIENCY The EIS must document fully the present importance and future potential of outfitting, angling, sport hunting, commercial hunting, fishing, and trapping, and wilderness tourism.

DEFICIENCY # 13

GUIDELINES SECTION: 5.0 (6)

GUIDELINES REQUIREMENT "...the impacts on the natural and human environments of ...

(c) the termination of the Project."

DEFICIENCY The EIS does not adequately deal with the question of the termination of the project.

MINIMUM REQUIREMENT TO RECTIFY THE DEFICIENCY The EIS must deal thoroughly with every aspect of the impacts of the termination of the Project on the natural and human environments.

DEFICIENCY # 14

GUIDELINES SECTION: 5.0 (7); 6.2.3, Para.2

GUIDELINES REQUIREMENT "...the cumulative effects of the Project and of other projects and activities in the Project Area;"

"Information on other existing, planned or probable developments in the Project Area must be presented in sufficient detail to permit the Panel to understand any cumulative impacts or interactions that may arise from them, even if such projects are not within the jurisdiction of the Proponent. The Proponent is not, however, expected to undertake field-work or original research into such developments, but may base its assessment of their impacts on available information. The EIS must document the Proponent's efforts to inform itself about any such developments. The Proponent must not limit this part of its study to large-scale developments, but must consider also smaller-scale developments, such as might be financed or undertaken by individuals, communities, or local or regional development associations. The Proponent must demonstrate that it has taken into account local, municipal, regional, and provincial land-use and management plans."

DEFICIENCY The EIS concentrates on a restricted list of biophysical issues contained in Peterson et al. (1987), rather than dealing with the full range of biophysical, social, and economic cumulative impacts of the Project. It does not adequately describe the full range of existing, planned or probable developments in the Project Area, especially smaller-scale projects. It does not adequately document the Proponent's efforts to inform itself about the relevant developments, and it does not deal explicitly with the required land-use and management plans. Many of the cumulative impacts identified are based more on supposition than on the testing of hypotheses.

MINIMUM REQUIREMENT TO RECTIFY THE DEFICIENCY The EIS must provide an assessment of cumulative impacts that identifies all direct and indirect impacts of the Project, including the interactions between valued ecosystem components, any effects of biomagnification, and the cumulative impacts of the Project and of other existing or planned activities in the Project Area.

REFERENCES

Peterson, E.B.; Chan Y.-H.; Peterson, N.B.; Constable, G.A.; Caton, R.B.; Davis, C.S.; Wallace, R.R.; Yarranton, G.A. 1987. Cumulative effects assessment in Canada: an agenda for action and research. Can. Env. Assessment Res. Council. Hull, Quebec. 66 pp.

DEFICIENCY # 15

GUIDELINES SECTION: 5.0 (9)

GUIDELINES REQUIREMENT "...the effects of the Project on the aboriginal and treaty rights recognized and affirmed in Schedule B, Part 2 of the Constitution Act 1982, including the effects on the process of negotiation and settlement of aboriginal claims;"

DEFICIENCY The EIS describes the present status of certain land claims, but it devotes little or no attention to the effects of the Project on the aboriginal and treaty rights or on the process of negotiation and settlement of those claims.

MINIMUM REQUIREMENT TO RECTIFY THE DEFICIENCY The EIS must:

- (1) discuss, with reference to relevant jurisprudence, current interpretations as to the nature of the aboriginal rights contemplated in the Constitution Act 1982, and describe the possible effects of the Project on those rights;
- (2) describe in sufficient detail the rights established by the **James Bay and Northern Quebec Agreement**, including amendments, and the **Northeastern Quebec Agreement**, and describe the possible effects of the Project on those rights;
- (3) describe the possible effects of the Project on the negotiation and settlement of relevant claims in the Project Area.

DEFICIENCY # 16

GUIDELINES SECTION: 6.2, Page 16, Para. 5

GUIDELINES REQUIREMENT "The Proponent must indicate whether the Project or any of its elements will infringe any individual or collective right recognized and protected by the Canadian Charter of Rights and Freedoms, the Universal Declaration of Human Rights, the Quebec Charter of Human Rights, the Newfoundland Human Rights Code or by any other similar legislation, charter, or declaration."

DEFICIENCY The EIS does not explain its view that the Project will not infringe on any of the individual or collective rights protected by the instruments listed in the above-cited Paragraph. The EIS does not deal with instruments other than those listed.

MINIMUM REQUIREMENT TO RECTIFY THE DEFICIENCY The Proponent must summarize the principal features of the relevant instruments and must then provide a detailed explanation of its above-cited view. The Proponent must appreciate that the above-cited list is illustrative only and must present and discuss any other relevant instruments.

DEFICIENCY # 17

GUIDELINES SECTION: 6.3, Page 18, Para. 5

GUIDELINES REQUIREMENT "The Proponent must use maps of a suitable scale and other descriptive means to identify and describe each component of the ecosystem, including social, cultural and economic components, and to show the Project in relation to recognizable geographic features and to each of the components of the ecosystem mentioned above, including other existing or proposed developments."

DEFICIENCY The EIS does not contain all the maps that are required for a proper understanding of the possible impacts of the Project. The missing maps include: wildlife habitat; the seasonal movements and distribution of humans; past land use; past distributions of wildlife; the distribution of impacts; domestic and international civil air routes. Some maps do not show the Low Level Training Areas, or key geographic features.

MINIMUM REQUIREMENT TO RECTIFY THE DEFICIENCY The EIS must contain all maps that are necessary for its proper comprehension.

DEFICIENCY # 18

GUIDELINES SECTION: 5.0 (8); 6.3.1

GUIDELINES REQUIREMENT "...the impacts of the development and operation of land and sea weapons and training ranges."

Detailed description of Component 1.

DEFICIENCY The Panel has identified the following, which collectively constitute a deficiency:

- (1) 5.0 (8): the EIS does not properly consider the impacts on current and future users of being excluded from certain of the ranges;
- (2) 6.3.1 (i): the bilateral Exchanges of Notes and the Memorandum of Understanding are not described and discussed in sufficient detail;
- (3) 6.3.1 (ii): there is no reference to or discussion of Low Level Training Areas 3 and 4, Bagotville Low-Level Route, or the three Transall C-160 Low Level Routes;
- (4) 6.3.1 (x): the sonometric analysis for helicopters is not based on the type in common military use at Goose Bay in 1987;
- (5) the location of the second Practice Target Area is not shown, and the EIS contains mutually contradictory statements about its size. The locations of camera targets are not shown.

MINIMUM REQUIREMENT TO RECTIFY THE DEFICIENCY The EIS must rectify the preceding deficiency. In the case of the sonometric analysis, field measurements may be required. The EIS must properly consider the impacts on current and future users of being excluded from certain of the ranges.

Based on the letter of December 21, 1990 from Honourable Bill McKnight to Honourable Robert R. de Cotret, further treatment of the impacts of a sea range is not required.

DEFICIENCY # 19

GUIDELINES SECTION: 6.4, Page 27, Para. 3

GUIDELINES REQUIREMENT "All pertinent data, including raw data, must be included in the EIS. If that is not possible because of the volume of data, raw data may be made available separately from the EIS."

DEFICIENCY With certain exceptions, the required raw data were neither included in the EIS, nor made available separately.

MINIMUM REQUIREMENT TO RECTIFY THE DEFICIENCY The Proponent must make available, preferably in a central location, at least one set of all the raw data on which the EIS is based.

DEFICIENCY # 20

GUIDELINES SECTION: 6.4, Page 27, Para. 5

GUIDELINES REQUIREMENT "It [the EIS] must give particular attention to the relationship between the economic activities and practices of the aboriginal peoples and the survival and viability of their cultures."

DEFICIENCY The EIS deals superficially with the relationship between the economic activities and practices of the aboriginal peoples of the Project Area and the survival and viability of their cultures.

MINIMUM REQUIREMENT TO RECTIFY THE DEFICIENCY On the basis of the available literature and of fieldwork within the Project Area, the EIS must address the preceding topic more fully.

(a) 6.4.1 (iii): There is no reference to or discussion of low level training Areas 1 and 2, respectively low-level targets, or the three present 0-250 low level targets.

(4) 6.4.1 (xi): The atmospheric analysis for helicopters is not based on the type of common military use of these by the US.

(5) The location of the selected practice target area is not shown, and the EIS contains mutually contradictory statements about its size. The locations of other targets are not shown.

MINIMUM REQUIREMENT TO RECTIFY THE DEFICIENCY The EIS must rectify the preceding deficiency. In the case of the atmospheric analysis, field measurements may be required. The EIS must properly assess the impacts on current and future users of being subjected to noise levels of the range.

Based on the letter of December 21, 1970 from Headquarters to the District of Columbia, further assessment of the impacts of noise is not required.

DEFICIENCY # 21

GUIDELINES SECTION: 6.4.1.4

GUIDELINES REQUIREMENT "Particular attention must be directed to rare or endangered species or populations and, as appropriate, to the vicinity of Goose Bay Airport, the Lake Melville area, the low-level training areas, the proposed sites for weapons ranges, and other areas that will be frequently overflowed at low altitudes or otherwise affected by the Project. Where useful or necessary, data on the flora and fauna must be presented separately for individual herds, stocks, populations, or communities.

- (i) Fish - seasonal distribution, movement, abundance, and status of stocks of marine, freshwater, anadromous and catadromous fish, identification of spawning times, and other aspects of behaviour and life-cycles;
- (ii) Marine Mammals - population size and status, seasonal distribution, movements, and other aspects of behaviour and life-cycles;
- (iii) Birds - population size and status, seasonal distribution, movements, and other aspects of behaviour and life-cycles;
- (iv) Terrestrial Mammals - abundance, herd/population size and status, seasonal distribution, movements, and other aspects of behaviour and life-cycles; and
- (v) Flora - distribution, composition, and condition of plant communities, including aquatic, littoral and riparian communities."

DEFICIENCY The EIS contains the following, which collectively constitute a deficiency:

- (1) no information is presented on certain species of fauna and flora;
- (2) the possible uniqueness of certain elements of the flora and fauna of the Project Area is not considered;
- (3) the treatment of the prey base, on which culturally and economically important fur-bearers depend, is inadequate;
- (4) the life-history information on many species of the fauna, including fur-bearers, is incomplete;
- (5) the habitat requirements of most species of fauna are omitted;

(6) there is insufficient discussion of the population dynamics of most species of fauna;

(7) there is insufficient attention to rare and endangered species, particularly species of flora;

(8) certain references to the literature are incomplete and outdated.

MINIMUM REQUIREMENT TO RECTIFY THE DEFICIENCY The Proponent must correct the preceding deficiency.

DEFICIENCY # 22

GUIDELINES SECTION: 6.4.2 (i), (iii)

GUIDELINES REQUIREMENT "(i) the distribution and characteristics of the human populations, including such aspects as seasonal variations, population trends and composition, cultural and economic practices and activities, temporary and permanent camps, communities, employment, health, municipal services and infrastructure, and housing, with special attention of the fact that certain facilities and services in Happy Valley-Goose Bay play a regional role;"

"(iii) the economic, cultural and social setting, including present and projected revenues without the project, with special reference to community and individual subsistence and commercial hunting, fishing and trapping, including such activities in the area of any proposed sea range;"

DEFICIENCY Particularly with respect to communities other than Happy Valley-Goose Bay, and to social and cultural matters, the data presented should be more comprehensive.

MINIMUM REQUIREMENT TO RECTIFY THE DEFICIENCY Drawing upon consultation with the relevant individuals, organizations, governments, and others, as well as published and unpublished information and statistics, the EIS must present a comprehensive description and analysis which, among others, convey an adequate sense of the societies of the Project Area.

Based on the letter of December 21, 1990 from Honourable Bill McKnight to Honourable Robert R. de Cotret, further treatment of impacts of a sea range is not required.

DEFICIENCY # 23

GUIDELINES SECTION: 6.4.2 (ii)

GUIDELINES REQUIREMENT "...(ii) statistics on the physical and psychological health of the various groups in the Project Area, distinguishing where appropriate on the basis of age, sex and ethnic origin, separating the situation prior to 1979 from that after 1979. The term "health" must be given the broadest reasonable interpretation, to include all forms of physiological and psychological stress, trauma, damage or pressure;"

DEFICIENCY The EIS reveals the following which collectively constitute a deficiency:

- (1) it fails to present statistics on aspects of health other than the physiological ones;
- (2) the data presented are incomplete and do not consider all the groups in the Project Area;
- (3) the data are not presented by age, sex and ethnic origin;
- (4) the data presented do not separate the periods before and since 1979.

MINIMUM REQUIREMENT TO RECTIFY THE DEFICIENCY The Proponent must rectify the preceding deficiency.

DEFICIENCY # 24

GUIDELINES SECTION: 6.4.2 (iv)

GUIDELINES REQUIREMENT "... (iv) a description of the social and economic cost and benefits associated with military activities in the Quebec-Labrador Peninsula since 1941, with particular reference to those since 1979."

DEFICIENCY The EIS does not describe adequately the social costs and benefits associated with military activities in the Quebec - Labrador Peninsula since 1941, with particular reference to those since 1979.

MINIMUM REQUIREMENT TO RECTIFY THE DEFICIENCY The Proponent must rectify the preceding deficiency. The Panel recommends that the social analysis include interviews with relevant individuals and organizations focusing on the post 1979 period.

DEFICIENCY # 25

GUIDELINES SECTION: 6.4.2. (vii)

GUIDELINES REQUIREMENTS "... sites or areas of particular cultural, spiritual, or other importance to the aboriginal or other occupants, and other areas of special status, such as ecological reserves, sanctuaries, and areas of archaeological, historical or palaeontological significance. Archaeological surveys must be conducted in the vicinity of the weapons ranges and on the site reserved for the expansion of the Goose Bay Airport, and in any other areas where the Project could affect archaeological sites and where such surveys have not already been carried out;"

DEFICIENCY The EIS contains the following, which collectively constitute a deficiency:

- (1) it does not identify sites or areas of particular cultural, spiritual, or other importance to the aboriginal or other occupants of the Project Area;
- (2) it does not identify all known areas of special status, such as ecological reserves and sanctuaries;
- (3) it does not identify areas of archaeological, historical, or palaeontological significance;
- (4) it does not describe any archaeological surveys.

MINIMUM REQUIREMENT TO RECTIFY THE DEFICIENCY In consultation with governments, aboriginal and other organizations and individuals, and on the basis of the available literature, the Proponent must rectify the preceding deficiency. The Proponent must also undertake archaeological surveys as required in the Guidelines.

Based on the letter of December 21, 1990 from Honourable Bill McKnight to Honourable Robert R. de Cotret, further treatment of impacts of the expansion of the Goose Bay airport on archaeological sites is not required.

DEFICIENCY # 26

GUIDELINES SECTION: 6.5 (Vi)

GUIDELINES REQUIREMENT "... (vi) whether local labour pools contain sufficient numbers of persons qualified to fill the posts that will be created in the future. If not, this subsection must state whether existing local and regional training and educational programmes and facilities will be able to meet the anticipated employment needs, and must, if necessary, identify new programmes and facilities, calculate their costs, and identify funding sources."

DEFICIENCY The EIS ignores some of the requirements of this subsection and deals with the remainder superficially.

MINIMUM REQUIREMENT TO RECTIFY THE DEFICIENCY The EIS must undertake the following:

- (1) prepare a list of the types of manpower that will be required;
- (2) construct a profile of the education, qualifications, and work experience of the population(s) from which manpower is likely to be drawn;
- (3) evaluate whether local labour pools contain the necessary, available manpower, and, if necessary, ascertain whether existing training programmes and facilities can meet the anticipated employment needs;
- (4) identify, if necessary, new programmes and facilities, calculate their costs, and identify funding sources.

The Panel recommends that the Proponent involve the Labrador Community College and the relevant federal and provincial government departments and agencies in the preceding exercise.

DEFICIENCY # 27

GUIDELINES SECTION: 6.6 (GENERAL)

GUIDELINES REQUIREMENT Mitigative measures.

"This subsection must also identify the costs and feasibility of the mitigative measures proposed and must state who will be responsible for implementing them."

"The mitigative measures that will be implemented upon the termination of the Project, either of its components, or any of its elements must be clearly identified."

DEFICIENCY The Panel has identified the following, which collectively constitute a deficiency.

- (1) no comprehensive programme of mitigative measures is presented, as required in section 6.6 of the Guidelines;
- (2) there is no demonstration of the feasibility of a strategy of avoidance as a mitigative measure;
- (3) no mitigative measures are presented for social impacts specifically designed to be implemented on the termination to the Project.

MINIMUM REQUIREMENT TO RECTIFY THE DEFICIENCY The EIS must rectify the above cited deficiency.

DEFICIENCY # 28

GUIDELINES SECTION: 6.7, Page 34, Para 5-6

GUIDELINES REQUIREMENT "The residual impacts are those for which practical mitigative measures cannot be devised and those that remain after the successful application of mitigative measures.

The significance of the residual impacts must be determined using the pre-established criteria referred to in Subsection 6.5."

DEFICIENCY Residual biophysical impacts are identified in tabular form, but are inadequately explained. The majority of residual socio-economic impacts are discussed in the abstract, and their significance is not established using the required criteria.

MINIMUM REQUIREMENT TO RECTIFY THE DEFICIENCY The EIS must rectify the preceding deficiency.

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DEFICIENCY # 29

GUIDELINES SECTION: 6.8 (General)

GUIDELINES REQUIREMENT "This subsection must also describe, explain, cost, and identify responsibility for a programme of monitoring..."

DEFICIENCY The EIS does not propose a monitoring programme. Rather, it notes (page 9-1) that "DND will **develop and implement** a monitoring programme that will meet the objectives set forth in the Panel Guidelines..." and (page 9-2) "This program, **currently being developed**, will be made public before the EARP public hearings..." (emphasis added).

MINIMUM REQUIREMENT TO RECTIFY THE DEFICIENCY The Proponent must ensure that the EIS contains a monitoring programme that fulfils all of the requirements of Subsection 6.8.